

REMARKSI. Introduction

With the cancellation herein without prejudice of claims 32 and 34, claims 17 to 31, 33 and 35 are currently pending in this application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

Applicants thank the Examiner for the courtesies extended to Applicants' representative during the course of the telephone interviews on February 10, 2004 and April 27, 2004. Applicants pointed out during the interviews that the claims, as amended above, overcome the 35 U.S.C. § 112 rejections. The objected to "only" language has been removed from the claims. Further, regarding the enablement issue, Applicants pointed out that the claims should not be limited to a specific material as the Specification supports in general the esterification of the ceramic surface areas, such that the esterifying of the ceramic surface areas prevents deposition of the metal coatings on the ceramic surface areas, as recited in the amended claims. The Examiner has agreed that all pending claims are allowable.

II. Rejection of Claims 17 to 19, 22 to 31, 33 and 35 Under 35 U.S.C. § 112

Claims 17 to 19, 22 to 31, 33 and 35 were rejected under 35 U.S.C. § 112, first paragraph as allegedly not enabling a person skilled in the art to make and use the invention commensurate in scope with the claims. Applicants submit that claims 17 to 19, 22 to 31, 33 and 35 are allowable for the following reasons.

The Office Action alleges that the Specification, while being enabling for treating the substrate with a siloxane, does not reasonably provide enablement for any material being used to treat the substrate. See Final Office Action at p. 2. Applicants respectfully disagree for the following reasons.

M.P.E.P. § 2164 states that when the subject matter is not in the Specification portion of the application as filed but is in the claims, the limitation in and of itself may enable one skilled in the art to make and use the claim containing the limitation.

M.P.E.P. § 2164.01 states that the standard for determining whether the Specification meets the enablement requirement was cast in the Supreme Court decision of Mineral Separation v. Hyde, 242 U.S. 261, 270 (1916) which postured the question: is the experimentation needed to practice the invention undue or unreasonable? Accordingly, the test for enablement is whether a person skilled in the art could practice the claimed invention without undue experimentation. M.P.E.P. § 2164.01(a) requires that the Examiner consider all of the following factors in determining whether any experimentation is "undue":

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and
- (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

M.P.E.P. § 2164.01(a) states that it is improper to conclude that a disclosure is not enabling based on an analysis of only one of the above factors while ignoring one or more of the others. The Examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of nonenablement must be based on the evidence as a whole.

Applicants submit that the Office Action has not presented a prima facie case of lack of enablement as no

consideration has been presented as to all of the above requisite factors, as required by M.P.E.P. § 2164.01(a). Accordingly, withdrawal of this rejection is respectfully requested. Applicants further submit that the Specification and the limitations of claims 17 to 19, 22 to 31 and 33, in and of themselves, as per M.P.E.P. § 2164, enable one skilled in the art to make and use the subject matter as claimed in claims 17 to 19, 22 to 31 and 33. Amended independent claim 17, from which claims 18, 19, 22 to 31 and 33 ultimately depend, recites the step of esterifying the ceramic surface areas. Further, the Final Office Action admits that the Specification discloses esterifying the ceramic surface areas with siloxane. See Final Office Action at p. 2 and the Specification at p. 4, line 23. Furthermore, Applicants direct the Examiner's attention to original claim 1, which recites "[a] method for treating the surface of a ceramic hybrid substrate having ceramic surface areas and metallic surface areas, . . . wherein the ceramic surface areas . . . are esterified," and to original claim 16, which recites "[a] ceramic hybrid substrate with a surface having ceramic surface areas and metallic surface areas, . . . wherein the ceramic surface areas . . . are esterified." Applicants respectfully submit that one skilled in the art would not have to unduly experiment to achieve the step of esterifying the ceramic surface areas in light of the disclosure in the Specification of the use of siloxane to esterify the ceramic surface and the original claims.

Further, as indicated during the phone interview, independent amended claim 17 requires more than simply esterifying a substrate. Rather, independent amended claim 17 further recites chemically depositing metal coatings on the metallic surface areas, the esterifying of the ceramic surface areas preventing deposition of the metal coatings on the ceramic surface areas. Applicants submit that the Specification supports generally the step of esterifying of the ceramic surface areas, and therefore, the claims should not be limited to the use of a specific solution, such as

siloxane, which is provided only as an exemplary solution in the Specification. See p. 4, line 22.

Therefore, Applicants respectfully submit that claim 17, and claims 18, 19, 22 to 31 and 33, which ultimately depend from claim 17, are fully supported by an enabling disclosure. Accordingly, withdrawal of this rejection is respectfully requested.

Further, notwithstanding the above, claim 35 has been amended to recite the step of siloxanizing. Therefore, Applicants respectfully submit that amended claim 35 overcomes the present rejection.

**III. Rejection of Claims 17 to 31  
and 33 to 35 Under 35 U.S.C. § 112**

Claims 17 to 31 and 33 to 35 were rejected under 35 U.S.C. § 112, first paragraph as allegedly containing subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Final Office Action alleges that the recitation in claims 17, 34 and 35 that only the ceramic surface area is esterified is not disclosed in the Specification. Final Office Action at p. 3. Claim 34 has been canceled herein without prejudice or waiver, thereby rendering moot the rejection of this claim. Applicants submit that claims 17, as amended herein without prejudice, and claims 19 to 23, 25 to 31, 33 and 35, which ultimately depend from claim 17, overcome the present rejection. Therefore, withdrawal of this rejection is respectfully requested.

**IV. Rejection of Claims 17 to 20, 22, 23,  
27, 34 and 35 Under 35 U.S.C. § 102(b)**

Claims 17 to 20, 22, 23, 27, 34 and 35 were rejected under 35 U.S.C. § 102(b) as anticipated by White, Proceedings of the IEEE, 57(9), pp. 1610 to 1615, 1969 ("White"). Claim 34 has been canceled herein without prejudice or waiver,

thereby rendering the rejection of this claim moot. Applicant respectfully submits that claims 17 to 20, 22, 23, 27 and 35 are not anticipated by White for the following reasons.

Claim 17 relates to a method for treating a surface of a ceramic hybrid substrate including ceramic surface areas and metallic surface areas. Claim 17 has been amended to recite esterifying the ceramic surface areas of the ceramic hybrid substrate and chemically depositing metal coatings on the metallic surface areas. Claim 17 has further been amended to recite that the esterifying of the ceramic surface areas prevents deposition of the metal coatings on the ceramic surface areas. No new matter has been added. See the Specification, for example, at p. 2, lines 15 to 37.

Claim 35 relates to a method for treating a surface of a ceramic hybrid substrate including ceramic surface areas and metallic surface areas. Claim 35 has been amended to recite the steps of siloxanizing the ceramic surface areas and depositing a metal coating on the metallic surface areas. Claim 35 has further been amended to recite that the siloxanizing of the ceramic surface areas prevents deposition of the metal coating on the ceramic surface areas. No new matter has been added. See the Specification, for example, at p. 2, lines 15 to 37 and p. 6, lines 15 to 34.

White purportedly relates to a silicone-based encapsulation of integrated circuits. Various coatings are evaluated for their moisture protection. See p. 1612, Table 1. Nowhere, however, does White disclose, or even suggest, the steps of esterifying the ceramic surface areas of the ceramic hybrid substrate and chemically depositing metal coatings on the metallic surface areas, such that the esterifying of the ceramic surface areas prevents deposition of the metal coatings on the ceramic surface areas, as recited in amended claim 17. Further, White does not disclose, or even suggest, siloxanizing the ceramic surface areas and depositing a metal coating on the metallic surface areas, wherein the siloxanizing of the ceramic surface areas prevents deposition of the metal coating on the ceramic

surface areas, as recited in amended claim 35. White does not even mention metal coatings, let alone depositing metal coatings on the metallic surface areas, such that the esterifying of the ceramic surface areas prevents deposition of the metal coatings on the ceramic surface areas. Therefore, White does not disclose all of the limitations of amended claims 17 and 35.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). As more fully set forth above, it is respectfully submitted that White does not disclose, or even suggest, the steps of esterifying the ceramic surface areas of the ceramic hybrid substrate and chemically depositing metal coatings on the metallic surface areas, such that the esterifying of the ceramic surface areas prevents deposition of the metal coatings on the ceramic surface areas, as recited in amended claim 17. Further, White does not disclose, or even suggest, siloxanizing the ceramic surface areas and depositing a metal coating on the metallic surface areas, such that the siloxanizing of the ceramic surface areas prevents deposition of the metal coating on the ceramic surface areas, as recited in amended claim 35. Therefore, it is respectfully submitted that White does not anticipate amended claims 17 and 35.

As for claims 18 to 20, 22, 23 and 27, which ultimately depend from claim 17 and therefore include all of the limitations of claim 17, Applicant respectfully submits that White does not anticipate these dependent claims for at

least the same reasons provided above in support of the patentability of claim 17.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**V. Rejection of Claims 21, 28  
and 29 Under 35 U.S.C. § 103(a)**

Claims 21, 28 and 29 were rejected under 35 U.S.C. § 103(a) as unpatentable over White. Applicants submit that claims 21, 28 and 29 are not rendered unpatentable by White for the following reasons.

As more fully set forth above, it is respectfully submitted that White does not disclose, or even suggest, the steps of esterifying the ceramic surface areas of the ceramic hybrid substrate and chemically depositing metal coatings on the metallic surface areas, such that the esterifying of the ceramic surface areas prevents deposition of the metal coatings on the ceramic surface areas, as recited in amended claim 17, from which claims 21, 28 and 29 ultimately depend. Therefore, it is respectfully submitted that White does not disclose all of the limitations of claims 21, 28 and 29, which ultimately depend from amended claim 17.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. *In re Royka*, 490 F.2d 981, 180

U.S.P.Q. 580 (C.C.P.A. 1974). As stated above, White does not disclose all of the limitations of claim 17, from which claims 21, 28 and 29 depend, and therefore does not render obvious claims 21, 28 and 29. Therefore, withdrawal of this rejection is respectfully requested.

**VI. Priority**

As regards the statement that "Applicant should include a reference to the PCT priority at the beginning of the specification;" Final Office Action at page 6, the Examiner's attention is directed to M.P.E.P. § 1893.03(c), which states that "since the international application is not an earlier application . . . , a benefit claim in the national stage to the international application is inappropriate" and that "it is not necessary for the applicant to amend the first sentence of the specification to reference the international application number."

**VII. Conclusion**

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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